



**Government of Russian Federation
Federal State Autonomous Educational Institution of
High Education
«National Research University Higher School of Economics»**

National Research University
Higher School of Economics
Faculty of Social Science
Department of Psychology

**Syllabus for the course
«Psychology of creativity»**

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1. Teacher

Author, lecturer: Sergey Yagolkovskiy

Faculty of Social Sciences, Department of Psychology, associate professor

Laboratory of Cognitive Research, senior researcher

2. Scope of Use

The present program establishes minimum demands of students' knowledge and skills, and determines content of the course.

This syllabus meets the standards required by:

- Educational standards of National Research University Higher School of Economics;
- Educational program of Federal Master's Degree Program;

3. Summary

Creativity determines to a considerable degree the effectiveness of human activity in various fields. The course focuses on psychological aspects of creativity which are presented on physiological, cognitive, emotional, and motivational levels. In the course, attention will be paid to each of these levels of creativity. Students will get familiar with a number of methods which are used for the assessment of individual creativity. One more important factor of individual creativity is encouraging environment which enhances individual creative abilities. In this context, some forms of group creativity will be considered within this course.

4. Learning Objectives

The course puts into practice the following learning objectives:

- formation the basic knowledge about theories and models of human creativity;
- getting knowledge about methods of stimulation and evaluation of individual creativity.

5. Learning outcomes

Upon successful completion of the course, students should:

- know basic notation and terminology used in creativity research
- be able to determine main criteria of creative activity
- know the seminal theories and models of creativity
- be capable to assess individual creativity using various methods
- have basic knowledge about methods of stimulation of individual creativity

5. Place of the discipline in the MagoLego course from University pool.

The course «Psychology of creativity » is an elective course taught in MagoLego pool. It is recommended for non-specialists who wish to get fundamental knowledge in psychology of creativity.

Prerequisites

The course assumes no prior knowledge of psychology of creativity.

The following knowledge and competence are needed to study the discipline:

- a good command of the English language, both orally and written.
- basic knowledge of psychology

After completing the study of the discipline «Psychology of creativity» the student should have the



following competences:

| Competence | Code | Code (UC) | Descriptors (indicators of achievement of the result) | Educative forms and methods aimed at generation and development of the competence |
|---|------|------------------------------|---|---|
| The ability to reflect developed methods of activity | SC-1 | SC-M1 | Students are able to reflect developed creativity methods to their professional and everyday activities | Lectures, group discussions, presentations |
| Capability of development of new research methods, change of scientific and industrial profile of self-activities | SC-3 | SC- M3 | Students obtain necessary knowledge in creativity research, sufficient to develop new methods in other disciplines. | additional material, homeworks, paper review |
| The ability to describe problems and situations of professional activity in terms of humanitarian, economic and social sciences to solve problems which occur across sciences, in allied professional fields. | PC-5 | ICM5.3_5. 4_5.6_2. 4.1 | Students are able to define and describe problems in their professional areas as creative problems | Lectures, group discussions, presentations. |

6. Schedule

Two pairs consist of 2 academic hours for lecture followed by 2 academic hours for seminars/exercises after lecture.

| № | Topic | Total hours | Contact hours | | Self-study |
|---|---|-------------|---------------|----------|------------|
| | | | Lectures | Seminars | |
| 1 | <i>Introduction to psychology of creativity</i> | 10 | 2 | 2 | 6 |
| 2 | <i>Paradigms in creativity research</i> | 18 | 4 | 2 | 12 |
| 3 | <i>Biological bases of creativity</i> | 12 | 2 | 2 | 8 |
| 4 | <i>Cognitive aspects of creativity</i> | 14 | 4 | 2 | 8 |



| | | | | | |
|---|--|------------|-----------|-----------|-----------|
| 5 | <i>Creative person</i> | 12 | 2 | 2 | 8 |
| 6 | <i>Social, cultural, and economic determinants of creativity</i> | 12 | 2 | 2 | 8 |
| 7 | <i>Measuring of individual creativity</i> | 18 | 2 | 4 | 12 |
| 8 | <i>Stimulation of creativity</i> | 18 | 2 | 4 | 12 |
| | Total | 114 | 20 | 20 | 74 |

7. Requirements and Grading

| Type of grading | Type of work | Characteristics | |
|-----------------|--------------|-----------------|--|
| Current | Homework | 1 | Doing homework task |
| | Class | 2 | Attendance and activity |
| | | Grade formula | $G_{current} = 0,5 \cdot G_{class} + 0,5 \cdot G_{homework}$ |
| Exam | Written exam | 3 | Preparation time – 45 min. |
| Final | | Grade formula | $G_{final} = 0,4 \cdot G_{exam} + 0,6 \cdot G_{current}$ |

8. Assessment

The current assessment consists of one homework and activity. In the course of doing homework, students have to analyze 10 original ideas or inventions.

Final assessment is the final exam. Students have to demonstrate knowledge in the psychology of creativity.

All grades, having a fractional part greater than 0.5, are rounded up.

| Ten-point Grading Scale | Five-point Grading Scale | |
|---|--------------------------|-------------|
| 1 - very bad 2 – bad 3 – no pass | Unsatisfactory - 2 | FAIL |
| 4 – pass 5 – highly pass | Satisfactory – 3 | PASS |
| 6 – good 7 – very good | Good – 4 | |
| 8 – almost excellent 9 – excellent 10 – perfect | Excellent – 5 | |



9. Course Description

The following list describes the topics that will be covered in the course in correspondence with lecture order.

Topic 1. Introduction to psychology of creativity.

Definitions of creativity. Criteria of creative activities. Types and aspects of creativity. Verbal vs. non-verbal creativity. Individual vs. group creativity. Creativity in various fields of human activity.

Topic 2. Paradigms in creativity research.

Classifications of theories and models on creativity. Hierarchical classification of studies of creativity. Different approaches to creativity research. General models of creativity (4 –stage Wallas’s model, 4P\6P model, 4C model)

Topic 3. Biological bases of creativity.

Physiological correlates of individual creative activity. The role of cortical activation in creative activity. Attention deployment. Right and left hemispheres activation. Left-handedness and creativity. Arousal. Creativity and mental illness

Topic 4. Cognitive aspects of creativity.

Convergent and divergent thinking. Idea generation as an associative process. The Matrix model of idea generation. The SIAM Model of idea generation. The role of memory and knowledge in creative process. Creativity as a productive thinking. Insight. Creativity and artificial intelligence. Computational creativity. Creativity and intelligence.

Topic 5. Creative person.

Core characteristics as correlates of creative personality. Self-actualization and creativity. Traits of creative people. Complexity, openness, and plasticity and their role in creativity. Models of inspiration. The role of intrinsic and extrinsic motivation in creativity. The state of flow. Historiometric and biographical methodologies in creativity research. Creativity in psychoanalysis.

Topic 6. Social, cultural, and economic determinants of creativity

Co-creation. The fish-scale model. Group creativity. Brainstorming. Advantages and drawbacks of brainstorming. The modifications of traditional brainstorming. The investment theory and psychoeconomic model. Creative class. Cross-cultural studies of creativity. System approach to creativity research.

Topic 7. Measuring of individual creativity.

Psychometric approach in creativity research. Methods of the assessment of creativity (RAT, TTCT, ATTA, Guilford’s tests). Specificity of the assessment of verbal and pictorial (non-verbal) creativity. Parameters of creativity in the course of the assessment (fluency, originality, elaboration, flexibility).



Topic 8. Stimulation of creativity.

Overview of methods. Algorithmic and non-algorithmic methods of creativity stimulation. Individual and group format of stimulation. Morphological analysis, Synectics. TRIZ, Mindmapping.

10. Term Educational Technology

The following educational technologies are used in the study process:

- lectures
- group discussions on core points of the course
- discussions and analyses of the results of homeworks;
- individual and group exercises to stimulate creativity
- activity on the assessment of individual creativity

11. Recommendations for course lecturer

Course lecturer is advised to use interactive learning methods (slides presentations, pieces of famous movies with examples of characters' creative activity to illustrate core points of the course). These methods can be combined with writing materials on board, and the usage of other possible means to present applications of psychology of creativity to various fields of students' future professional activity.

12. Recommendations for students

Taking into account that the course is interactive, lectures are combined with exercises. It is supposed that students don't hesitate to ask questions and actively participate in group discussions. The lecturer is ready to answer students' questions online.

13. Final exam questions

No material is allowed for the exam.

The final exam consists of 18 questions equally weighted. Each question will focus on a particular topic presented during the lectures. There are 4 possible answers to each question provided. Only one of them is correct. Students have to mark this answer.

A sample test task with 4 possible answer provided (1 is correct)

In accordance with the theory of productive thinking proposed by K. Duncker, there is a factor which inhibits creativity. What is this factor?

- A) Productivity blocking
- B) Functional fixedness
- C) Fear
- D) External motivation (need for reward)

14. Reading and Materials

14.1. Recommended Reading

1. Glăveanu, Vlad (2010) Paradigms in the study of creativity: introducing the perspective of cultural psychology. *New ideas in psychology*, 28 (1). pp. 79-93.
2. Runco, M.A. (2004). *Creativity/ Annual Review of Psychology*, 55, pp. 657–87.
3. *Handbook of creativity/R.J. Sternberg (Ed.)*, Cambridge: Cambridge University Press, 1999.



4. The Cambridge handbook of creativity/ J. C. Kaufman & R. J. Sternberg (Eds.), New York, NY: Cambridge University Press, 2010.

14.2. Supplementary Reading

1. Acar, S., & Runco, M. A. Thinking in multiple directions: Hyperspace categories in divergent thinking. *Psychology of Aesthetics, Creativity, and the Arts*, 2015, 9(1), 41-53.
2. Amabile T.M. Attributions of creativity: what are the consequences? // *Creativity Research Journal*, 1995, 8, pp. 423-426.
3. Boden M.A. (Ed.) *Dimensions of Creativity*. Cambridge, MA: MIT Press, 1994.
4. Csikszentmihalyi M. *Creativity: flow and the psychology of discovery and invention*. Harper Collins Publishers, NY, 1996.
5. Dugosh K.L., Paulus P.B., Roland E.J., Yang H.-C. Cognitive stimulation in brainstorming// *Journal of personality, and social psychology*, 2000, 79, pp. 722-735.
6. Fink, A., Koschutnig, K., Benedek, M., Reishofer, G., Ischebeck, A., Weiss, E. M., & Ebner, F. (2012). Stimulating creativity via the exposure to other people's ideas. *Human Brain Mapping*, 33(11), 2603-2610.
7. Gordon W.J. *Synectics, the Development of Creative Capacity*. Harper, New York, 1961.
8. Guilford J.P. *Creativity*// *American Psychologist*, 1950, 5, pp. 444-454.
9. Guilford J.P. *Traits of Creativity*// *Creativity and its Cultivation*/ H.G. Anderson (ed.), Harper, 1959, pp. 142-161.
10. Lubart, T. I. (2000). Models of the creative process: past, present and future. *Creativity Research Journal*, 13, 295-308
11. Osborn, A.F. *Applied imagination*. New York: Shribner, 1957.
12. Runco, M. A., & Jaeger, G. J. (2012). The standard definition of creativity. *Creativity Research Journal*, 24(1), 92-96

15. Equipment

The course requires a laptop and projector.

Lecture materials, course structure and the syllabus have been prepared by Sergey Yagolkovskiy.